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09/527,313	03/16/2000	Michael E. Pietraszak	14531.57.1	2247

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EXAMINER

SLOAN, NATHAN A

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/527,313

Applicant(s)

PIETRASZAK ET AL.

Examiner

Nathan A Sloan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 45 and 47-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 45 and 47-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

DETAILED ACTION

*Response to Amendment*

1. Applicant's arguments with respect to claims 45, 56, and 64 have been considered but are moot in view of the new ground(s) of rejection. The newly relied upon art of record, the Durden et al. (6,442,756) reference, was previously cited and supplied to applicant.

*Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 45 and 47-55 are rejected as being unpatentable over Usui et al. (6,075,570) in view of Durden et al. (6,442,756) and in further view of Williams et al. (6,157,411).

With respect to claim 45, the claimed "system for receiving EPG data from one or more EPG data providers in a plurality of data formats and for providing consolidated EPG data available in a standardized format to one or more applications running on the system" is met by Usui with reference to Figure 1. The claimed EPG services module for "receiving EPG data from a plurality of EPG data sources and providing consolidated EPG data in a standardized format ..." is met with EPG receiver 6 of Figure 2, which functions as in Fig. 8 to provide EPG data in a standardized format. Receiving units taught in column 17, lines 4-22 receive EPG data

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from a variety of sources and provide this to EPG receiver 6. With reference to Figure 8, receiver 6 inherently contains “one or more loader modules” to select equipment S31, request data S32, “convert EPG data received from the EPG data provider from its native format to a standardized format” S33, and store the data. The claimed writer module is met by controller 204 of Figure 2, which collects EPG data from the various receiving equipment and converts using translator 206 to store the data in common format understood by EPG receiver 6 (see also col.10:41-48). Commands to process and format data are stored in EEPROM unit 206, thus providing a computer readable medium carrying computer executable instructions. A user may enforce “a scaling of the collected EPG data according to factors provided by a user” as taught in col. 9:7-9, 21-44, and 45-46. Usui does not teach converting to a common format before scaling according to time “wherein EPG data corresponding to more impending broadcasts times is richer than EPG data corresponding to less impending broadcast times.” However, Usui clearly teaches that when only using factors provided by a user, a large amount of memory is utilized (col. 10:21-25) in comparison to when a common storage format is used. Durden teaches a system for conserving memory usage by storing an EPG scaled according to time where richer data is stored for more impending times as seen in Figure 2. It would have been obvious for one skilled in the art at the time of the invention to modify the system of Usui by placing data into a common format and scaling according to time as taught by Durden in order to make the required capacity of RAM unit smaller (Usui col. 11:12-13) and allow users to view information for longer periods of time (Durden col. 1:51-53).

A user may request “EPG data from the one or more applications,” which results in the EPG data being retrieved from storage and returned as taught in col. 2:14-20. This data is stored

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in a database within RAM 207 as noted above, and then read out in response to a user request by controller 226 of Figure 5, claimed control module. This data is then provided to generating circuit 227 which generates the data for display, which shows an interactive application that allows the user to select items using a remote control seen in Figures 4 or 6. Usui does not explicitly teach an application program interface configured to provide "a standardized interface between the EPG control module and the one or more applications requiring EPG data." Usui does teach that the controller interfaces with receiving units to receive and format the data, but not explicitly that they are an API. Williams et al. teach the use of an API in column 6, lines 15-25. It would have been obvious for one skilled in the art at the time of the invention to include an API between the receivers and controller of Usui in order to allow a standard interface for receiving and processing data.

Furthermore, the limitation of the system being able to add EPG providers, remove providers, *or* accommodate changes "without having to modify or update the code of any of the one or more applications" is claimed in the alternative and as such Usui meets this limitation by adding EPG providers as taught in column 17, lines 4-16. A plurality of devices may be added to the system as claimed to receive EPG data as seen in Figure 22. It is inherent that these devices may also be removed and the invention function the same way because they are merely additional sources of information and not essential to the execution of controller 204 storing EPG data in memory. Assuming this limitation was modified to read add providers, remove providers, *and* accommodate changes, examiner notes that the adding and removing of data sources without modifications to applications is notoriously well known in the art. For example,

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plug-and-play technologies to “hot swap” devices without updating software are well known using object oriented programming techniques.

The specific connection of one or more loader modules “with a separate EPG loader module for each EPG data source,” is not explicitly taught. However, “loader modules” are inherently contained to retrieve data from each receiver as noted above. Instructions are provided to convert and format this data as necessary, but not use of a separate loader module for each source. As previously cited and uncontested by applicant, examiner takes Official Notice that it is well known to create an instance of module to interface with applications, such as in programming languages using object-oriented architecture. It would have been obvious for one skilled in the art at the time of the invention to modify the methods taught by Usui by creating a loader module for each interface using well known programming techniques in order to provide a flexible, re-programmable environment. This applies not only to providing separate loader modules, but also to any “module” or C++ type class that allows easy adaptation of a system using object oriented techniques such as inheritance, polymorphism, etc.

With respect to claim 47, the claimed factors provided by a user comprising channel is taught by Usui via scaling EPG data to be stored based on user conditions. In column 9, lines 10-20 these conditions are taught to include broadcast channels as claimed. This factor then determines which EPG data to store, taught in column 9, lines 22-40 with storing EPG data according to user defined factors in RAM unit 207.

With respect to claim 48, the claimed writer module containing computer executable instructions for “resolving conflicts between EPG data received from two or more EPG data providers” is taught in column 11, lines 23-35 with comparing broadcast names and programs

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from sources to determine if the programs need to be preserved as different pieces of information, or if they are the same.

With respect to claim 49, the claimed loader modules comprising computer executable instructions “for implementing a priority scheme” is taught by Usui et al. with a step of making a selection as to which receiving equipment to select, seen in Figure 7 step S21. As seen in Figure 6, a user may select the EPG category to be received and displayed using equipment button 244 meeting the claimed “priority scheme.” This then causes controller 204 to implement a selection for receiving, integrating, and displaying EPG data utilizing the processes seen in Fig. 7 and 8.

With respect to claims 50 and 51, the claimed writer module comprising computer executable instructions “for limiting the amount of the EPG data that may be placed in the storage” is taught by managing memory associated with RAM 207. As taught in column 11, lines 43-51 EPG data may be deleted once viewed, meeting the claimed “removing expired EPG data from storage.” The amount of memory contained in RAM 207 is inherently limited and by managing memory resources to efficiently store EPG data the limiting of data to be stored in RAM 207 memory is taught.

With respect to claim 52, the claimed writer module comprising computer executable instructions “for keeping the last EPG data stored to a particular portion of the storage” is met by keeping a history of EPG reception, taught in column 5, lines 59-63. This includes keeping the last information of EPG data stored when the power is turned off so the channel may be received again when power is turned back on.

With respect to claim 53, the claimed “storage is a database” is taught in column 10, lines 66-67 and column 11, lines 1-2.

With respect to claim 54, Usui teaches recording EPG data as noted above, teaches that input video signals are digital as claimed, and in column 15, lines 46-49 the recording of digital programming represented by EPG data using a VCR is taught.

With respect to claim 55, the claimed "EPG loader module is capable of being added to the device and removed from the device" is inherent to the invention. Clearly the receivers may be added to the device to form Usui's invention. As taught in column 17, lines 4-16 a plurality of devices may be added to the system as claimed to receive EPG data (Figure 22.) It is inherent that these devices may also be removed and the invention function the same way because they are merely additional sources of information and not essential to the execution of controller 204 storing EPG data in memory.

3. Claims 56-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usui et al. (6,075,570) in view of Durden (6,442,756).

With respect to claims 56 and 64, Usui teaches the claimed system and computer product for managing EPG data received from EPG data providers as noted in detail above (see Fig. 1). The EPG data is received from one or more EPG data providers and stored (col. 17:17-22) in associate with user provided conditions (col. 9:10-44). Usui does not teach scaling the EPG data where "more impending broadcasts times is richer than EPG data corresponding to less impending broadcast times." Durden teaches storing richer data for more impending times than less as seen in Fig. 2. It would have been obvious for one skilled in the art at the time of the invention to modify the system of Usui by scaling according to time as taught by Durden in order to make the required capacity of RAM unit smaller (Usui col. 11:12-13) and allow users to view information for longer periods of time (Durden col. 1:51-53).



With respect to claims 57 and 65, Usui teaches receiving data in a plurality of formats and reformatting to a “standardized format” compatible with the system for storage as seen in Fig. 8, step S33 and S34. This includes receiving and detecting EPG data from a first and second provider using first and second loader modules as seen in Fig. 1 by receiving and detecting EPG data from devices. The specific connection of a first and second loader modules for each EPG data source is not explicitly taught. However, “loader modules” are inherently contained to retrieve data from each receiver as noted above. Instructions are provided to convert and format this data as necessary, but not use of a separate loader module for each source. As previously cited and uncontested by applicant, examiner takes Official Notice that it is well known to create an instance of module to interface with applications, such as in programming languages using object-oriented architecture. It would have been obvious for one skilled in the art at the time of the invention to modify the methods taught by Usui by creating a loader module for each interface using well known programming techniques in order to provide a flexible, re-programmable environment. This applies not only to providing separate loader modules, but also to any “module” or C++ type class that allows easy adaptation of a system using object oriented techniques such as inheritance, polymorphism, etc.

With respect to claims 58 and 66, the claimed implementation of “conflict resolution for the first and second loader modules” is met by the loader modules addressed in response to claims 57 and 65 above, and further in col.11:23-35 by comparing broadcast names and programs from sources to determine if the programs need to be preserved as different pieces of information, or if they are the same.

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With respect to claim 59, the claimed loader first and second modules following a “priority scheme” is taught by Usui et al. with a step of making a selection as to which receiving equipment to select, seen in Figure 7 step S21. As seen in Figure 6, a user may select the EPG category to be received and displayed using equipment button 244 meeting the claimed “priority scheme.” This then causes controller 204 to implement a selection for receiving, integrating, and displaying EPG data utilizing the processes seen in Figures 7 and 8.

With respect to claims 60 and 67, the claimed scaling according to channel is taught by Usui as noted above by scaling EPG data to be stored based on user conditions, including broadcast channels as claimed (col. 9:10-20). This factor then determines which EPG data to store, taught in column 9, lines 22-40 with storing EPG data according to user defined factors in RAM unit 207.

With respect to claims 61-62 and 68-69, the claimed “limiting the amount of scaled and reformatted EPG data that may be placed in the storage” is taught by managing memory associated with RAM 207 in view of the combination in response to claims 56 and 64 above. As taught in column 11, lines 43-51 EPG data may be deleted once viewed, meeting the claimed “removing expired EPG data from storage.” The amount of memory contained in RAM 207 is inherently limited and by managing memory resources to efficiently store EPG data the limiting of data to be stored in RAM 207 memory is taught.

With respect to claims 63 and 70, the claimed accessing the EPG data from storage is taught in col. 2:14-20 with storing and retrieving EPG data for display.


*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan A Sloan whose telephone number is (703) 305-8143. The examiner can normally be reached on Mon-Fri 7:30am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703)305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NAS

  
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